

Amendments to the Claims

1. (Currently amended) A method for creating and writing defect management information of an information recording medium, comprising the steps of:

(a) detecting the presence of a defective area in an information recording medium-based on data reproduced from the information recording medium; wherein the defective area is detected based on a number of PID errors and/or a number of error bytes in a row of a data block;

(b) determining whether to move the data on the detected defective area into a replacement area as a result of step (a); and

(c) creating and writing the information signifying whether the replacement of the detected defective area is made or not as a result of step (b).

2. (Currently amended) A method according to claim 1, wherein said step (a) ~~comprises the steps of:~~

~~detecting the number of errors in the read-out of physical location information, which is recorded several times repeatedly for every prescribed area on the information recording medium, and/or the number of error bytes in one row which is produced from the encoding of each ECC; and~~

includes a step of determining the presence of the defective area in the information recording medium by comparing the detected number of errors with a pre-specified reference number of errors.

3. (Currently amended) A method according to claim 1, wherein said step (b) further determines the movement of the data recorded in the detected defective area into the replacement area based on whether or not the data on the defective area is real-time data.

4. (Original) A method according to claim 1, wherein said step (c) writes the location information of the detected defective area to other information area which is separated from a pre-specified defect management information area.

5. (Original) A method according to claim 4, further comprising the step of:
updating the defect management information in said pre-specified area by moving said location information of the defective area in said other information area into said pre-specified

defect management information area, when erasing of data recorded in the area containing the defective area is requested.

6. (Currently amended) A method for creating and writing defect management information of an information recording medium, comprising the steps of:

(a) detecting the presence of a defective area in an information recording medium based on data reproduced from the information recording medium; and

(b) determining whether to ~~move~~replace the data recorded on the detected defective area into a ~~replacement~~spare area based on type of the data, the data type being classified by whether the data is real-time data or non-real-time data, wherein the replacement is not performed if the data is real-time data while the replacement is performed if the data is non-real-time data.

7. (Canceled)

8. (Currently amended) A method according to claim 6, further comprising the step of:

creating and writing the information signifying whether the replacement of the detected defective area is made or not, as a result of the determining step.

9. (Currently amended) A method according to claim 8, wherein said ~~creating/writing~~ and writing step writes the location information of the detected defective area to other information area which is separated from a pre-specified defect management information area.

10. (Currently amended) A method according to claim 9, further comprising the step of:

updating said pre-specified defect management information by moving said location information on the defective area in said other information area into said pre-specified defect management information area, when an erasing operation of data recorded in the area containing the defective area is requested.

11. (Currently amended) An information recording medium, ~~comprising of~~including defect management information in either a lead-in area followed by user data or a lead-out area preceded by the user data, wherein the defect management information includes

~~a first area for storing defect management information which is being~~ used for controlling the replacement of a defective area with a replacement spare area; and

a second area ~~for storing the information signifying that whether~~ the replacement of the defective area is performed, based on the type of the data recorded on the defective area, the data type being classified by whether the data is real-time data or non-real-time data, wherein the replacement is not performed if the data is real-time data while the replacement is performed if the data is non-real-time data.

12. (Canceled)

13. (Currently amended) An apparatus for creating and writing defect management information of an information recording medium, comprising:

~~a means for~~detector detecting the presence of defective area in an information recording medium based on data reproduced from the information recording medium, wherein the defective area is detected based on a number of PID errors and/or a number of error bytes in a row of a data block; and;

~~a means for~~controller determining whether to move the data on the detected defective area into a replacement area; and according to the detection of the presence of the defective area and

~~a means for~~ creating and writing the information signifying whether the replacement of the detected defective area is made or not according to the determination.

14. (Currently amended) An apparatus according to claim 13, wherein said ~~detecting~~ means ~~comprises;~~detector includes

~~a means for detecting the number of errors in the read-out of physical location information, which is recorded several times repeatedly for every prescribed area on the information recording medium and/or the number of error bytes in one row which is produced from the encoding of each ECC; and~~

~~a means for~~comparator determining the presence of defective area in the information recording medium by comparing the detected number of errors with a pre-specified reference number of errors.

15. (Currently amended) An apparatus according to claim ~~13~~14, wherein said ~~determining means~~controller further determines the movement of the data recorded in the

detected defective area into the replacement area based on whether or not the data on the defective area is real-time data.

16. (Currently amended) An apparatus according to claim 13, wherein said ~~creating/writing means~~controller writes the location information of the detected defective area to other information area which is separated from a pre-specified defect management information area.

17. (Currently amended) An apparatus according to claim 16, ~~further comprising a means for updating~~wherein said controller updates the defect management information in said pre-specified area by moving said location information on the defective area in said other information area into said pre-specified defect management information area, when an erasing operation of data recorded in the area containing the defective area is requested.

18. (Currently amended) An apparatus creating and writing defect management information of an information recording medium, comprising:

a ~~means for~~detector detecting the presence of defective area in an information recording medium based on data reproduced from the information recording medium; and

a ~~means for~~controller determining whether to move the data recorded on the detected defective area into a replacement area based on the type of the data, the data type being classified by whether the data is real-time data or non-real-time data, wherein the replacement is not performed if the data is real-time data while the replacement is performed if the data is non-real-time data.

19. (Canceled)

20. (Currently amended) An apparatus according to claim 18, ~~further comprising:~~
a ~~means for creating and writing~~wherein said controller creates and writes the information signifying whether the replacement of the detected defective area is made or not, as a result of the determination.

21. (Currently amended) An apparatus according to claim 20, wherein said ~~creating/writing means~~controller writes the location information of the detected defective area to other information area which is separated from a pre-specified defect management information

area.

22. (Currently amended) An apparatus according to claim 21, ~~further comprising a means for updating~~wherein said controller updates said pre-specified defect management information by moving said location information on the defective area in said other information area into said pre-specified defect management information area, when an erasing operation of data recorded in the area containing the defective area is requested.